

DIVISION OF OIL AND GAS

Report on Operations

Mr. Frank C. Kresse, Agent

HARDING LAWSON ASSOCIATES

5735 Davis Circle

Rohnert Park, CA 94928

El Centro Calif.

February 10, 1986

Your operations at well DHS-3, API No. 065-90012,
Sec. 29, T.2S, R.5E, S.B.B. & M. - Field, in Riverside County,
were witnessed on 11/15/85 by R. Corbaley, representative of
the supervisor, was present from 1300 to 1600. There were also present
R. Skinner, Geologist for Harding Lawson.
Present condition of well: 17.78cm (7") cem. 32.61m (107'); 7.30cm (2-7/8") cem.
396.2m (1300'). T.D. 396.2m (1300'). Plugged w/cem. 22.86m (75') - 1.83m (6').

The operations were performed for the purpose of witnessing the plugging/cementing operations
in the process of abandonment.

DECISION:

APPROVED

NO DEFICIENCIES

CONTRACTOR - HARDING LAWSON ASSOCIATES

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FEB 24 1986

DIVISION OF OIL & GAS
SACRAMENTO

cc: Sacramento Geothermal Unit

M.G. MEFFERD

State Oil and Gas Supervisor

By

Deputy Supervisor

Richard E. Corbaley

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

REPORT OF WELL ABANDONMENT

El Centro, California

February 10, 1986

Mr. Frank C. Kresse, Agent

HARDING LAWSON ASSOCIATES

5735 Davis Circle

Rohnert Park, CA 94928

Your report of abandonment of well [REDACTED] & DHS-3
(Name and number)

A.P.I. No. *, Section *, T. 2S, R. 5E, S.B. B. & M.

- field, Riverside County,

dated 1/27/86, received 2/4/86, has been

examined in conjunction with records filed in this office, and we have determined that all of the requirements of this Division have been fulfilled:

[REDACTED]
DHS-3 - 065-90012 Sec. 29

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DIVISION OF OIL & GAS
SACRAMENTO

M.G. MEFFERD

State Oil and Gas Supervisor

By

Richard E. Corbaley
Deputy Supervisor

Richard E. Corbaley

REPORT ON PROPOSED GEOTHERMAL OPERATIONS

Mr. Frank C. Kresse, AgentHARDING LAWSON ASSOCIATES5735 Davis CircleRohnert Park, CA 94928El Centro, CaliforniaJan. 3, 1986

Your proposal to Abandon well *
API No. * , Section * , T. * , R. * , S.B. B. & M., field,
 - Geothermal Resource Area, Riverside County,
dated 11/22/85, received 12/2/85 has been examined in conjunction with records filed in this office.

* DHS-1 Sec. 32, T. 2S, R. 5E 065-90010
DHS-2 Sec. 32, T. 2S, R. 5E 065-90011
* ~~DHS-3~~ Sec. 29, T. 2S, R. 5E 065-90012

THE PROPOSAL, COVERING WORK ALREADY COMPLETED UNDER PRIOR AGREEMENT, IS APPROVED.

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SACRAMENTO

cc: Sacramento Geothermal Unit

M. G. MEFFERD, State Oil and Gas Supervisor

By Richard E. Corbaley

(Signature)

Richard E. Corbaley

A copy of this report and the proposal must be posted at the well site prior to commencing operations.

Records for work done under this permit are due within 60 days after completion, suspension, or abandonment.

NOTICE OF INTENTION TO ABANDON
GEOTHERMAL WELL*Submitted in Compliance with Section 3724, Division 3, Chapter 4, Public Resources Code*

Operator Harding Lawson Associates		Well Designation DHS-3 (INTERMEDIATE)			
Field/GRA [REDACTED]	County Riverside	Sec. 29	T. 2S	R. 5E	B. & M. SB
Name (Person submitting report - print or type) Frank C. Kresse		Street Address 7655 Redwood Blvd.			
Title (Agent or officer of company) Principal Geologist	City Novato	State California		Zip Code 94947	

Signature: Frank C. Kresse Date: 11/22/85 Telephone Number: 415/892-0821

The present condition of the well is as follows:

- Total depth: 396.2 meters
- Base of freshwater aquifer: _____ meters
- Last produced: _____, 19 ____

(Production in kg/hr., gal./min.)

- Results of initial production test: (includes fluid analysis)

_____ (Kg/hr., gal./min.) rate

_____ (Bars, psi) pressure

- Bottom hole temperature: 58 °C
- Maximum temperature: 58 °C, depth: 396 (meters)

- Stratigraphic markers and depths (in meters):
Alluvium

- Formation and age at total depth: Quaternary Alluvium

Complete casing record, including plugs:

Site of casing A.P.I.	Top of casing (m)	Depth of shoe (m)	Weight of casing (kg)	New or second hand	Seamless or lap-weld	Grade of casing	Size of hole drilled (cm)	Volume of cement (m ³) through perforations (m)	Depth of cementing (m)
17.78	Surface	32.6	10.41	N	S	ST&C	21.59	0.39	
7.30	Surface	396.2	2.94	S	S	J55 EUE	15.56	5.87	

To fulfill the abandonment requirements of the division, the following work is proposed:

- Place cement plug in approximately upper 50 feet of hole.
- Cut off casing and tubing 6 feet below surface.
- Backfill site.

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DIVISION OF OIL AND GAS

Report on Operations

Mr. Frank C. Kresse, Agent
HARDING LAWSON ASSOCIATES
5735 Davis Circle
Rohnert Park, CA 94928

El Centro Calif.
May 20, 1985

Your operations at well "DHS-3 (INTERMEDIATE)", API No. 065-90012,
Sec. 29, T. 2S, R. 5E, S. B., B. & M. - Field, in Riverside County,
were witnessed on 5/10/85 by R. Oquita, representative of
the supervisor, was present from 0600 to 1300. There were also present
R. Skinner, Geologist Harding Lawson
Present condition of well: 17.78cm (7") cem 32.6m (107') T.D. 34.13m (112') Drilling.

The operations were performed for the purpose of Testing the blowout prevention equipment.

DECISION:

APPROVED:

NO DEFICIENCIES

CONTRACTOR: H & W Drilling

REC:jb

cc: Sacramento Geothermal Unit

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MAY 28 1985

DIVISION OF OIL & GAS
SACRAMENTO

M. G. MEFFERD
State Oil and Gas Supervisor
By Richard E. Corbaley
Deputy Supervisor
Richard E. Corbaley

REPORT ON PROPOSED GEOTHERMAL OPERATIONSMr. Frank C. Kresse, AgentHARDING LAWSON ASSOCIATES5735 Davis CircleBohnert Park, CA 94928El Centro, CaliforniaApril 30, 1985**(INTERMEDIATE)**

Your _____ proposal to _____ drill observation _____ well _____ program _____
 API No. _____, Section _____, T. 2S, R. 5E, S.B. & M., _____ field,
 _____ Geothermal Resource Area, _____ Riverside County,
 dated 4/24/85, received 4/26/85 has been examined in conjunction with records filed in this office.

* Wells covered under this program are:

- DHS-1 (065-90010), Sec. 32, T. 2S., R. 5E.
- DHS-2 (065-90011), Sec. 33, T. 2S., R. 5E.
- ~~DHS-3~~ (065-90012), Sec. 29, T. 2S., R. 5E.
- DHS-4 (065-90013), Sec. 30, T. 2S., R. 5E.
- DHS-5 (065-90014), Sec. 30, T. 2S., R. 5E.

THE PROPOSAL IS APPROVED PROVIDED THAT:

1. Water with any beneficial use shall be protected from contamination at all times.
2. No fluid is to be produced from these wells.
3. A list containing the exact location, the surface elevation, the total depth, the bottom-hole temperature, and the date drilled for each well is to be filed with this division within six months following completion of the drilling program..
4. The well sites shall be restored as nearly as possible to original condition.
5. Division of Oil and Gas Class II A, 2M minimum blowout prevention equipment shall be installed on the surface casing prior to drilling out the shoe of the surface casing and maintained ready for use at all times.
6. All well records listed in appropriate sections of the Public Resources Code and the California Administrative Code are submitted within 60 days after cessation of drilling operations. Subsequent records such as temperature surveys or water analyses shall be submitted within 30 days after being run.
7. THIS DIVISION SHALL BE NOTIFIED:
 - a. One day prior to the commencement drilling.
 - b. Before altering the proposed program or suspending operations. Additional requirement will be outlined at that time.
 - c. To inspect the blowout prevention equipment prior to drilling out the shoe of the 7" casing.

cc: Geothermal Unit, Sacramento
 Dept. of Water Resources
 Regional Water Quality Control Board
 Dept. of Fish & Game

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 MAY 10 1985

DIVISION OF OIL & GAS
 SACRAMENTO

M. G. MEEFERD, State Oil and Gas Supervisor

By

Richard E. Corbaley
 (Signature)
 Richard E. Corbaley

A copy of this report and the proposal must be posted at the well site prior to commencing operations.

Records for work done under this permit are due within 60 days after completion, suspension, or abandonment.

PROPOSED DRILLING PROGRAM

Operator: Harding Lawson Associates

Wells: [REDACTED] DHS-3, [REDACTED] (INTERMEDIATE)

Elevation: (065-90012)
29/25/5E SB

Elevation:

1. Read and comply with requirements as set forth by regulatory agencies.
2. Set 8-5/8-inch conductor casing.
 - a. Move in and rig up rotary tools. Post well sign and any applicable permits at rig.
 - b. Note spud time (hours) on Rig Log and Report Form.
 - c. Notify Harding Lawson Associates' geologist eight hours prior to commencement of drilling.
3. Spud 8-1/2-inch hole and drill to 110 feet + using mud as circulating medium.
 - a. Catch 20-foot samples
 - b. Monitor and record flowline temperatures each hour.
 - c. Control lost circulation with LCM; if severe, cement as required to assure competent cement job using Portland cement slurry.
4. Run 7-inch 23-pound ST&C casing at 110 feet + and center.
5. Cement in-place with Portland cement slurry.
 - a. Pump cement until slurry reaches surface through annulus.
 - b. Displace cement in casing with water.
6. Weld on 6-inch casing head. Install and test BOE.
 - a. Notify California Division of Oil and Gas in ample time to permit witnessing of BOE test.

SECTIONS. [REDACTED], 29. [REDACTED]

T. 25, R. 5E, SB B&M

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JUN 1 1964

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DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

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MAY 10 1985
DIVISION OF OIL & GAS
SACRAMENTO
(065-90012)

Notice of Intention to Drill a Geothermal Resources Well

(SUBMIT IN DUPLICATE)

Operator Harding Lawson Associates		Well Designation "DHS"-3 (INTERMEDIATE)			
Field [REDACTED]		County Riverside	Sec. 29	T. 2 S	R. 5 E
Name (Person submitting report - print or type) Frank C. Kresse		Street Address 7655 Redwood Blvd.			
Title (Agent or officer of company) Principal Geologist		City Novato	State California		Zip Code 94948
Signature Frank C. Kresse		Date 4/24/85		Telephone Number (415) 892-0821	

The appropriate drilling fee, an indemnity or cash bond, a complete drilling program, and a parcel map showing the operator's surface rights, mineral rights, and the location of the proposed well must accompany this notice.

Location of well: 205 meters North along section/property line, and 75 meters East at right angles to

said line from the Southwest corner of section/property 29 or _____

Elevation of prepared site above/below sea level: 361 meters.

Is the surface location or intended productive interval within 100 feet of property boundary? ☒ yes ☐ no

If well is to be directionally drilled, show proposed coordinates (from surface location) at total depth:

_____ meters _____ and _____ meters _____

PROPOSED CASING PROGRAM

All depth measurements taken from top of Kelly Bushing that is 1.52 meters above ground.

(Derrick Floor, Rotary Table, or Kelly Bushing)

SIZE OF CASING CM API	WEIGHT (Kg)	GRADE AND TYPE	NEW OR USED	TOP OF CASING (m)	SIZE OF HOLE (cm)	VOLUME OF CEMENT (m ³)	CEMENTING DEPTHS	CALCULATED FILL BEHIND CASING
17.78	10.43	ST & C	Used	Surface	21.59	4.01	33.53 m to Surface	
7.30	14.33	J55 EUE	Used	Surface	15.88	82.39	304.8 m to Surface	

Intended zone(s) of completion: Alluvium Estimated total depth: 304 meters.

(Name, depth, and expected pressure)

ENVIRONMENTAL INFORMATION

(SEE REVERSE SIDE)

If a governmental agency has prepared an environmental document, please submit a copy of the document with this notice or supply the following information:

Government Agency: California Division of Oil and Gas Contact Person: Bernd Beutenmuller
Address: 1416 Ninth Street, Room 1310, Sacramento, CA 95814 Phone: (916) 323-2732
Document title: _____ S.C.H. No.: _____

Submitted in compliance with Section 3724, Division 3, Chapter 4, Public Resources Code.